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				searching
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NEWS	8	JUN	06	EPFULL enhanced with 260,000 English abstracts
NEWS	9	JUN	06	KOREAPAT updated with 41,000 documents
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				patent numbers for U.S. applications
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INDINO		0.014	10	web-based collections
NEWS	10	TENE	25	CA/CAplus and USPAT databases updated with IPC
MEMS	12	JUN	25	
				reclassification data
NEWS	13	JUN	30	AEROSPACE enhanced with more than 1 million U.S.
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NEWS	14	JUN	30	EMBASE, EMBAL, and LEMBASE updated with additional
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NEWS		JUL		EPFULL enhanced with additional legal status
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NEWS		JUL		STN Viewer performance improved
NEWS		AUG		INPADOCDB and INPAFAMDB coverage enhanced
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				page images from 1967-1998
NEWS	23	AUG	15	CAOLD to be discontinued on December 31, 2008
NEWS	24	AUG	1.5	CAplus currency for Korean patents enhanced
NEWS	2.5	AUG	2.5	CA/CAplus, CASREACT, and IFI and USPAT databases
				enhanced for more flexible patent number searching
NEWS	26	AUG	27	CAS definition of basic patents expanded to ensure
DATEMO	20	AUG	21	comprehensive access to substance and sequence
				information
NUMBER	0.77	OFF	10	
NEWS	21	SEP	18	Support for STN Express, Versions 6.01 and earlier,
				to be discontinued
NEWS	28	SEP	25	CA/CAplus current-awareness alert options enhanced

to accommodate supplemental CAS indexing of

exemplified prophetic substances

NEWS 29 SEP 26 WPIDS, WPINDEX, and WPIX coverage of Chinese and and Korean patents enhanced

NEWS 30 SEP 29 IFICLS enhanced with new super search field

NEWS 31 SEP 29 EMBASE and EMBAL enhanced with new search and display fields

language patents

NEWS 32 SEP 30 CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-

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CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE 'JAPIO' ENTERED AT 15:41:02 ON 01 OCT 2008 COPYRIGHT (C) 2008 Japanese Patent Office (JPO) - JAPIO

=> s (hydrogen(8a)deactivat?)(s)(metallocen? or titanocen? or zirconocen? or hafnocen?)

L1 3 (HYDROGEN(8A) DEACTIVAT?)(S)(METALLOCEN? OR TITANOCEN? OR ZIRCON OCEN? OR HAFNOCEN?)

=> d 11 1-3 ibib abs

L1 ANSWER 1 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2001:63800 USPATFULL

TITLE: Olefin polymerization catalyst system, producing and

using it

INVENTOR(S): Andell, Ove S., Merikorttitie, Finland
Hokkanen, Harri, Ketokiyentie, Finland

Hokkanen, Harri, Ketokiventie, Finland Mustonen, Marja, Riistatie, Finland

NUMBER

PATENT ASSIGNEE(S): Borealis Technolgy Oy, Porvoo, Finland (non-U.S.

corporation)

PATENT INFORMATION: US 6225423 B1 20010501
W0 9727224 19970731
APPLICATION INFO.: US 1998-101869 19980921 (9)
W0 1997-F134 19980921 PCT 371 date
19980921 PCT 102(e) date

NUMBER DATE

KIND DATE

PRIORITY INFORMATION: FI 1996-363 19960126

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wu, David W.
ASSISTANT EXAMINER: Harlan, R.

LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch, LLP

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 18

LINE COUNT: 1112

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a novel olefin polymerization catalyst system comprising a reaction product of a transition metal compound. A stable and active single active site catalyst is obtained by producing said reaction product by:

- (I) contacting in an organic solvent the following reactive components
- (a) a transition metal compound, which is at least partially soluble in the organic solvent and contains in its molecule at least one organic group and a transition metal chosen from periods 4-7 and groups 3-10 of the Periodic Table (TUPAC 1990), and
- (b) 0.05-500 moles of an unsaturated organic compound per mole of transition metal of the transition metal compound, which unsaturated organic compound is at least partially soluble in the organic solvent, has in its molecule 2-30 carbon atoms and at least one terminal double bond.
- to obtain a reaction product dissolved in the organic solvent; and
- (II) recovering the reaction product of the transition metal compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:42501 CAPLUS

DOCUMENT NUMBER: 130:96772

TITLE: Process and titanocene catalysts for hydrogenating

conjugated diene polymer

INVENTOR(S): Miyamoto, Koichi; Kitagawa, Yuichi; Sasaki, Sigeru

PATENT ASSIGNEE(S): Asahi Kasei Kogyo Kabushiki Kaisha, Japan

SOURCE: Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW Patent.

DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

I	PAT	ENT 1	10.			KINI)	DATE			APE	PLIC	AT	ON I	NO.		E	ATE	
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			IE,	FI															
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Ţ	JS	58861	108			A		1999	0323		US	199	7-9	474	62		1	9971	009
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- 2	ZA	97091	111			A		1998	0511		za	199	7-9	111			1	9971	010
PRIOR:	ITY	APPI	N. 1	INFO	. :						JP	199	7-1	744	69		A 1	9970	630
OTHER	SC	URCE	(S):			MARE	PAT	130:	9677:	2									

AB The title process for hydrogenating a conjugated diene polymer comprises the steps of: deactivating a conjugated diene polymer which is prepared by using an organic alkali metal compound as a polymerization initiator by adding а

deactivator; and contacting the deactivated diene

polymer with hydrogen in an inert hydrocarbon solvent to

hydrogenate the double bond of the deactivated diene polymer, wherein the

hydrogenation is carried out (i) in the presence of a titanocene catalyst under specified conditions. Styrene-butadiene triblock copolymer

was hydrogenated using titanocene dichloride and Me3Al catalysts. REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:194860 CAPLUS DOCUMENT NUMBER: 128:283101 ORIGINAL REFERENCE NO.: 128:56047a,56050a

TITLE: Hydrogen transfer reactions of supported metallocene

catalvsts

Kaminsky, Walter; Strubel, Christian AUTHOR(S):

CORPORATE SOURCE: Institut fur Technische und Makromolekulare Chemie,

Universitat Hamburg, Hamburg, 20146, Germany

Journal of Molecular Catalysis A: Chemical (1998),

128(1-3), 191-200 CODEN: JMCCF2; ISSN: 1381-1169

Elsevier Science B.V. PUBLISHER:

DOCUMENT TYPE: Journal

LANGUAGE: English

The evolution of methane from methylaluminoxane (MAO) solns. is enhanced in the presence of homogeneous metallocenes. This reaction serves as a model for the deactivation of metallocene catalysts. By supporting different metallocenes on a silica/MAO carrier the

deactivation reaction by α - hydrogen transfer among

metallocene active sites and aluminum alkyls can be suppressed. The suppression of α -hydrogen transfer is proven for different Al/Zr ratios and by near independence of the polymerization activity on the catalyst aging time, after reaching maximum activity. Aluminum alkyls and MAO leach Cp2ZrCl2 from the carrier, the leached metallocene is only active in polymerization if MAO is present.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 11 1 ibib hit

L1 ANSWER 1 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2001:63800 USPATFULL

TITLE: Olefin polymerization catalyst system, producing and

using it
INVENTOR(S): Andell, Ove S., Merikorttitie, Finland

Hokkanen, Harri, Ketokiventie, Finland

Mustonen, Marja, Riistatie, Finland

PATENT ASSIGNEE(S): Borealis Technolgy Cy, Porvoo, Finland (non-U.S.

corporation)

NUMBER DATE

PRIORITY INFORMATION: FI 1996-363 19960126

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wu, David W.
ASSISTANT EXAMINER: Harlan, R.

LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch, LLP

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 18 LINE COUNT: 1112

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Homogenous Ziegler-Natta catalyst systems based on metallocenes form a group of their own in the art. They usually comprise a π-cyclopentadiene complex of a transition metal, such as titanium or zirconium, and a synergistically functioning organoaluminium complex, such as alkyl aluminium or aluminium oxane (aluminoxane, alumoxane), which is a reaction product of alkyl aluminium and water. Characteristic to these homogenous catalyst systems is a medium polymerizing activity, a narrow molecular weight distribution of the polymer product and that the activity of the catalyst systems is rapidly lost. The deactivation

a narrow molecular weight distribution of the polymer product and that the activity of the catalyst systems is rapidly lost. The deactivation of the catalyst system has been studied using kinetic and spectroscopic methods. It was possible to demonstrate that the part that was active in the polymerization of ethylene comprised the transition metal in oxidation state +1V. The short life time of the active part is thought to be due to rapid deactivation processes, such as alkyl exchange, hydrogen exchange reaction and reduction reactions.

See S. S. Reddy and S. Siwaram, Prog. Polym. Sci. 20 (1995), 313.

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- => s (ethylene or ethene)(4a)polymeri?
- L4 73867 (ETHYLENE OR ETHENE) (4A) POLYMERI?
- => s 13 and 14
- L5 10069 L3 AND L4
- => s 12 and 15
- L6 163 L2 AND L5

```
=> s (slurry or particle(la)form)(6a)polymeri?
L7 15252 (SLURRY OR PARTICLE(1A) FORM) (6A) POLYMERI?
=> s 16 and 17
          83 L6 AND L7
=> s (ethylene or ethene)(s)hydrogen
       90594 (ETHYLENE OR ETHENE)(S) HYDROGEN
=> s 18 and 19
T-10
           48 L8 AND L9
```

=> d 110 1-20 ibib abs

L10 ANSWER 1 OF 48 USPATFULL on STN ACCESSION NUMBER: 2007:198275 USPATFULL

TITLE: Polyethylene resins

INVENTOR(S): Barry, David Bruce, Melbourne, AUSTRALIA Diamond, Gary M., San Jose, CA, UNITED STATES Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES

Wang, Chunming, Acton, MA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20070173623	A1	20070726	
	US 20080039606	A9	20080214	
APPLICATION INFO.:	US 2007-711076	A1	20070227	(1
DELYAND YDDIN INCO .	Division of Cor	Mr. IIC	2004 4756	0.1

Division of Ser. No. US 2004-475601, filed on 12 May RELATED APPLN. INFO.: 2004, GRANTED, Pat. No. US 7199195 A 371 of

International Ser. No. WO 2002-US10326, filed on 4 Apr

2002

DATE

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RIORITY	INFORMATION:	US 2001-289173P	20010507	(60)
TIMENITON	TVDF.	Dt 4.1.4 tax		

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EXXONMOBIL CHEMICAL COMPANY, 5200 BAYWAY DRIVE, P.O.

MUMDED

BOX 2149, BAYTOWN, TX, 77522-2149, US

NUMBER OF CLAIMS: 38 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 1345

CAS INDEXING IS AVAILABLE FOR THIS PATENT. ΔR

The invention provides ethylene/a-olefin copolymers exhibiting improved environmental stress cracking resistance properties, and methods for the production of the copolymers in a single reactor by means of a bimetallic catalyst including a Ziegler component and a metallocene component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 2 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2005:325065 USPATFULL

TITLE: PROCESSES FOR TRANSITIONING BETWEEN METALLOCENE AND ZIEGLER-NATTA POLYMERIZATION CATALYSTS

INVENTOR(S): Agapiou, Agapios Kyriacos, Humble, TX, UNITED STATES Hagerty, Robert Olds, La Porte, TX, UNITED STATES

Hussein, F. David, Cross Lane, WV, UNITED STATES Muhle, Michael Elroy, Kingwood, TX, UNITED STATES Pannell, Richard B., Kingwood, TX, UNITED STATES Russell, Kathryn Ann, Seabroak, TX, UNITED STATES Santana, Robert Lynn, Baytown, TX, UNITED STATES Zhang, X. Simon, London, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050282978	A1	20051222
	US 6995217	B2	20060207
APPLICATION INFO.:	US 2005-191585	A1	20050728 (11)
RELATED APPLN. INFO.:	Division of Ser.	No. US	2003-715813, filed on 18 Nov
	2003, GRANTED, Pa	at. No.	US 6949612

NUMBER DATE PRIORITY INFORMATION: US 2002-437697P 20021231 (60) DOCUMENT TYPE: Utility APPLICATION

FILE SEGMENT:

LEGAL REPRESENTATIVE: Univation Technologies, LLC, Suite 1950, 5555 San Felipe, Houston, TX, 77056, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM: LINE COUNT: 920

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes for transitioning among polymerization catalyst systems, preferably catalyst systems that are incompatible with each other. In particular, the processes relate to transitioning from olefin polymerizations utilizing metallocene catalyst systems to olefin polymerizations utilizing traditional Ziegler-Natta

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 48 USPATFULL on STN

catalyst systems.

ACCESSION NUMBER: 2005:306628 USPATFULL

TITLE: Bimetallic catalyst for producing polyethylene resins

with bimodal molecular weight distribution, its preparation and use

INVENTOR(S):

Mink, Robert Ivan, Tarrytown, NY, UNITED STATES Nowlin, Thomas Edward, West Windsor, NJ, UNITED STATES Shirodkar, Pradeep P., Kingwood, TX, UNITED STATES Diamond, Gary M., San Jose, CA, UNITED STATES Barry, David Bruce, Melbourne, AUSTRALIA Wang, Chunming, Tewksbury, MA, UNITED STATES

Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES

NUMBER KIND DATE US 20050267271 A1 20051201 US 7129302 B2 20061031 US 2005-180455 A1 20050713 (11) PATENT INFORMATION:

APPLICATION INFO.: RELATED APPLN. INFO.: Division of Ser. No. US 2003-433228, filed on 29 May

2003, PENDING A 371 of International Ser. No. WO 2001-US31075, filed on 4 Oct 2001

NUMBER DATE

PRIORITY INFORMATION: US 2000-250317P 20001130 (60)

DOCUMENT TYPE: Utility

APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: Univation Technologies, LLC, Suite 1950, 5555 San

Felipe, Houston, TX, 77056, US

NUMBER OF CLAIMS: 26

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 2131

CAS INDEXING IS AVAILABLE FOR THIS PATENT. Bimetallic catalyst for producing polyethylene resins with a bimodal molecular weight distribution, its preparation and use. The catalyst is obtainable by a process which includes contacting a support material with an organomagnesium component and carbonyl-containing component. The support material so treated is contacted with a non-metallocene transition metal component to obtain a catalyst intermediate, the latter being contacted with an aluminoxane component and a metallocene component, This catalyst may be further activated with, e.g., alkylaluminum cocatalyst, and contacted, under polymerization conditions, with ethylene and optionally one or more comonomers, to produce ethylene homo- or copolymers with a bimodal

molecular weight distribution and improved resin swell properties in a single reactor. These ethylene polymers are particularly suitable for blow molding applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2005:281744 USPATFULL

TITLE: Olefin polymerisation process INVENTOR(S): Jacobsen, Grant Berent, Bouc Bel Air, FRANCE

Kimberley, Brian Stephen, Bouche Du Rhone, FRANCE

Mastroianni, Sergio, Martigues, FRANCE

NUMBER KIND DATE US 20050245699 A1 20051103 US 7271226 B2 20070918 US 2003-525730 A1 20030806 (10) WO 2003-GB3438 20030806 PATENT INFORMATION:

APPLICATION INFO.:

20050225 PCT 371 date

NUMBER DATE

PRIORITY INFORMATION: EP 2002-358020 20020829

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US

NUMBER OF CLAIMS: 15 EXEMPLARY CLAIM:

547 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A process for the homopolymerisation of ethylene or the copolymerisation of ethylene and (a-olefins in a polymeristation reactor, said process carried out in the presence of a catalyst system comprising (a) a polymerisation catalyst and (b) an ionic activator is characterised in that an organometallic compound of a Group IIIB metal having at least one unit of formula: M.cedilla.O.cedilla.R or

M.cedilla.O.cedilla.M where M is the Group IIIB metal and R is a

hydrocarbyl group is added to the reactor. Preferred organometallic compounds include aluminoxanes and the process results in improved poison scavenging as well as advantages in activity profiles, catalyst activity and product characteristics. The process is particularly suitable for use with supported metallocene catalyst systems in the slurry or gas phase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 5 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2005:190265 USPATFULL

TITLE: Methods of forming a supported activated catalyst

composition

INVENTOR(S): McCullough, Laughlin G., League City, TX, UNITED STATES Holtcamp, Matthew W., Huffman, TX, UNITED STATES

RELATED APPLN. INFO.: Division of Ser. No. US 2003-645817, filed on 21 Aug

2003, GRANTED, Pat. No. US 6900154

NUMBER DATE

PRIORITY INFORMATION: US 2002-429114P 20021126 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Univation Technologies, LLC, Suite 1950, 5555 San

Felipe, Houston, TX, 77056, US

NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 1105

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes of forming a supported activated catalyst composition and method of polymerization are disclosed, the process of forming the composition including combining a halogenated aromatic aluminum activator compound with a fluorinated support and a catalyst to form a supported activated catalyst composition. Also disclosed is a supported activated catalyst composition, comprising the reaction product of a fluorinated support, a perfluorophenyl aluminum activator and in one embodiment a metallocene catalyst. In one embodiment, the halogenated aromatic aluminum activator is represented by the formula R.sub.nål(ArHal).sub.3-n, wherein ArHal is a halogenated arryl group, R is a monoanionic licand, and n is 1 or 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 6 OF 48 USPATFULL on STN ACCESSION NUMBER: 2005:99681 USPATFULL

TITLE: Polymerization process and control of polymer

composition properties

INVENTOR(S): Ehrman, Fred D., Houston, TX, UNITED STATES

Shirodkar, Pradeep P., Kingwood, TX, UNITED STATES Davis, Mark Bradley, Hurricane, WV, UNITED STATES Zilker, Daniel P. JR., South Charleston, WV, UNITED

STATES

Shannon, Porter C., Seabrook, TX, UNITED STATES

NUMBER KIND DATE US 20050085600 A1 20050421 US 7238756 B2 20070703 US 2003-685607 A1 20031015 (10) PATENT INFORMATION: APPLICATION INFO.: DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Univation Technologies, LLC, Suite 1950, 5555 San

Felipe, Houston, TX, 77056, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Page(s) LINE COUNT: 2400

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods of controlling the flow index and/or molecular weight split of a polymer composition are disclosed. The method of producing a polymer composition in one embodiment comprises incorporating a high molecular weight polymer into a low molecular weight polymer to form the polymer composition in a single polymerization reactor in the presence of polymerizable monomers, a bimetallic catalyst composition and at least one control agent; wherein the control agent is added in an amount sufficient to control the level of incorporation of the high molecular weight polymer, the level of low molecular weight polymer, or both. Examples of control agents include alcohols, ethers, amines and oxygen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 7 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2005:82227 USPATFULL

TITLE: Olefin polymerization process using triisobutylaluminum

as a scavenger

INVENTOR(S): Wang, Shaotian, Mason, OH, UNITED STATES

NUMBER KIND DATE PATENT INFORMATION: US 20050070675 A1 20050331

AR

LEGAL REPRESENTATIVE: LYONDELL CHEMICAL COMPANY, 3801 WEST CHESTER PIKE,

NEWTOWN SOUARE, PA, 19073

NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 39 LINE COUNT: 397

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Ethylene and optional comonomers are polymerized using a supported metallocene catalyst, an alumoxane activator, and triisobutylaluminum (TIBAL). A silica support is first pretreated with a silane compound and then with an organoboron compound. The treated silica is then combined with a Group 4 metallocene complex and an alumoxane to generate a supported, activated catalyst. While it was previously thought that the particular support treatment technique used herein provided benefits only for polymerizations catalyzed by non-metallocene single-site complexes, it has now been found that similar benefits can be realized even with conventional metallocenes if TIBAL is selected as the scavenger.

L10 ANSWER 8 OF 48 USPATFULL on STN

2004:310050 USPATFULL ACCESSION NUMBER:

TITLE: Polymerization process and control of polymer

composition properties Ehrman, Fred D., Houston, TX, United States INVENTOR(S):

Shirodkar, Pradeep P., Kingwood, TX, United States Santana, Robert Lynn, Baytown, TX, United States

Shannon, Porter C., Seabrook, TX, United States

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, United States (U.S. corporation)

NUMBER KIND DATE US 6828395 B1 20041207 US 2003-685650 20031015 PATENT INFORMATION: APPLICATION INFO.: 20031015 (10) DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Rabago, Roberto

LEGAL REPRESENTATIVE: Faulkner, Kevin M. NUMBER OF CLAIMS: 40

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT: 2610

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods of controlling rheological properties of polymer compositions comprising at least one high molecular weight polymer and one low molecular weight polymer are disclosed. The polymer compositions are produced by polymerizing monomers in a single reactor using a bimetallic catalyst composition. A control agent such as, for example, an alcohol, ether, oxygen or amine is added to the reactor to control the rheological properties of the reactor. The polymerization takes place in the presence of rheological-altering compounds such as alkanes and aluminum alkyls. The control agents are added in an amount sufficient to counter the influences of the rheological-altering compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 9 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2004:268223 USPATFULL

TITLE: Supported metallocene catalyst system for olefin polymerization, method for making and

using the same

INVENTOR(S): Atiqullah, Muhammad, Dhahran, SAUDI ARABIA

Moman, Akhlag, Rivadh, SAUDI ARABIA Akhtar, Muhammad Naseem, Dhahran, SAUDI ARABIA

Abu-Raqabah, Atieh, Riyadh, SAUDI ARABIA

Palackal, Syriac J., Riyadh, INDIA Al-Saleh, Muhammad A., Dhahran, SAUDI ARABIA Rahman, Faizur, Dhahran, SAUDI ARABIA

Ibrahim, Muhammad, Rivadh, SAUDI ARABIA Khan, Javaid H., Dhahran, SAUDI ARABIA

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20040209766	A1	20041021	
	US 6908876	B2	20050621	
APPLICATION INFO.:	US 2003-414615	A1	20030416	(10)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			

LEGAL REPRESENTATIVE: KRAMER LEVIN NAFTALIS & FRANKEL LLP, INTELLECTUAL

PROPERTY DEPARTMENT, 919 THIRD AVENUE, NEW YORK, NY,

NUMBER OF CLAIMS: 20 EXEMPLARY CLAIM: 1 LINE COUNT: 1123

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

B The present invention relates to a supported catalyst system for olefin polymerization which comprises at least one metallocene component and a support of an inorganic oxide of silica, aluminum or a polymer containing hydroxyl groups. The support is modified with an organogermane and/or organotin compound. The inventive catalyst system produces minimal reactor fouling, has excellent productivity and good hydrogen responsiveness. The present invention also relates to a process for preparing the catalyst system and to the slurry/suspension

or gas-phase polymerization of olefins using the catalytic system, optionally with a small amount of aluminoxane cocatalyst.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 10 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2004:240436 USPATFULL
TITLE: Polyethylene resine

INVENTOR(S): Barry, David Bruce, Melbourne, AUSTRALIA

Diamond, Gary M, San Jose, CA, UNITED STATES Fruitwala, Hitesh A, Houston, TX, UNITED STATES Christine Ong, Shih-May, Warren, NJ, UNITED STATES Wang, Chunming, Tewksbury, MA, UNITED STATES

NUMBER DATE

PRIORITY INFORMATION: US 2001-60289173 20010507

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EXXONMOBIL CHEMICAL COMPANY, P O BOX 2149, BAYTOWN, TX,

NUMBER OF CLAIMS: 64
EXEMPLARY CLAIMS:

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 1477

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention provides ethylene/a-olefin copolymers exhibiting improved environmental stress cracking resistance properties, and methods for the production of the copolymers in a single reactor by means of a bimetallic catalyst including a Ziegler component and a metallocene component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 11 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2004:233942 USPATFULL

TITLE: Processes for transitioning between metallocene and ziegler-natta polymerization catalysts

INVENTOR(S): Agapiou, Agapios Kyriacos, Humble, TX, UNITED STATES

Hagerty, Robert Olds, La Porte, TX, UNITED STATES Hussein, F. David, Cross Lanes, WV, UNITED STATES Muhle, Michael Elroy, Kingwood, TX, UNITED STATES Pannell, Richard B., Kingwood, TX, UNITED STATES Russell, Kathryn Ann, Seabrook, TX, UNITED STATES Santana, Robert Lynn, Baytown, TX, UNITED STATES Zhang, X. Simon, London, UNITED KINGDOM

NUMBER KIND DATE US 20040181016 A1 20040916 US 6949612 B2 20050927 US 2003-715813 A1 20031118 PATENT INFORMATION: APPLICATION INFO.: A1 20031118 (10)

> NUMBER DATE

PRIORITY INFORMATION: US 2002-437697P 20021231 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Univation Technologies, LLC, Suite 1950, 5555 San

Felipe, Houston, TX, 77056 21 975

NUMBER OF CLAIMS: EXEMPLARY CLAIM: LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes for transitioning among polymerization catalyst

systems, preferably catalyst systems that are incompatible with each other. In particular, the processes relate to transitioning from olefin polymerizations utilizing metallocene catalyst systems

to olefin polymerizations utilizing traditional Ziegler-Natta catalyst systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 12 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2004:185190 USPATFULL

TITLE: Processes for transitioning between chrome-based and mixed polymerization catalysts

INVENTOR(S): Terry, Kersten Anne, Charleston, WV, UNITED STATES

Goode, Mark Gregory, Hurricane, WV, UNITED STATES Wente, Daniel E., Houston, TX, UNITED STATES Chirillo, John, Friendswood, TX, UNITED STATES

Mawson, Simon, Orlando, FL, UNITED STATES Cevallos-Candau, Jose Fernando, Charleston, WV, UNITED

STATES

NUMBER KIND DATE US 20040143076 A1 20040722 US 6841630 B2 20050111 US 2003-715651 A1 20031117 (10) PATENT INFORMATION: APPLICATION INFO.:

NUMBER DATE PRIORITY INFORMATION: US 2002-437204P 20021231 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Osborne K. McKinney, Univation Technologies, LLC, Suite 1950, 5555 San Felipe, Houston, TX, 77056

19

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

LINE COUNT: 1495

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Processes for transitioning among polymerization catalyst systems, preferably catalyst systems, which are incompatible with each other. Particularly, processes for transitioning among olefin

polymerization reactions utilizing silyl-chromate catalyst

systems and metallocene catalyst systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 13 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2004:133775 USPATFULL

TITLE: Methods of forming a supported activated catalyst

Composition

INVENTOR(S): McCullough, Laughlin G., League City, TX, UNITED STATES Holtcamp, Matthew W., Huffman, TX, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 20040102312 A1 20040527

FOR 56900154 B2 20050531

APPLICATION INFO:: US 2003-645817 A1 20030821 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2002-429114P 20021126 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Univation Technologies, LLC, Suite 1950, 5555 San

Felipe, Houston, TX, 77056

NUMBER OF CLAIMS: 33
EXEMPLARY CLAIM: 1
LINE COUNT: 1178

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes of forming a supported activated catalyst composition and method of polymerization are disclosed, the process of forming the composition including combining a halogenated aromatic aluminum activator compound with a fluorinated support and a catalyst to form a supported activated catalyst composition. Also disclosed is a supported activated catalyst composition, also disclosed is a supported activated catalyst composition, also disclosed is a supported activated catalyst composition, are provided to a fluorinated support, a perfluorophenyl aluminum activator and in one embodiment a metallocene catalyst. In one embodiment, the halogenated aromatic aluminum activator is represented by the formula

R.sub.nAl(ArHal).sub.3-n, wherein ArHal is a halogenated aryl group, R

is a monoanionic ligand, and n is 1 or 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 14 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2004:64217 USPATFULL

TITLE: Bimetallic catalyst for producing polyethylene resins

with bimodal molecular weight distribution, its

preparation and use

INVENTOR(S): Mink, Robert Ivan, Tarrytown, NY, UNITED STATES

Nowlin, Thomas Edward, West Windsor, NY, UNITED STATES

Shirodkar, Pradeep P., Kingwood, TX, UNITED STATES Diamond, Gary M., San Jose, CA, UNITED STATES

Barry, David Bruce, Melbourne, AUSTRALIA Wang, Chunming, Tewksbury, MA, UNITED STATES

Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES DATE

		NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2	0040048736	A1	20040311	
	US 65	964937	B2	20051115	
		003-433228 001-U\$31075	A1	20030529 20011004	(10)

NUMBER DATE US 2000-60250317 20001130

PRIORITY INFORMATION: DOCUMENT TYPE:

Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: ExxonMobil Chemical Company, Law Technology, PO Box

2149, Baytown, TX, 77522-2149

NUMBER OF CLAIMS: 50

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s) LINE COUNT: 2325

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Bimetallic catalyst for producing polyethylene resins with a bimodal molecular weight distribution, its preparation and use. The catalyst is obtainable by a process which includes contacting a support material with an organomagnesium component and carbonvl-containing component. The support material so treated is contacted with a non-metallocene transition metal component to obtain a catalyst intermediate, the latter being contacted with an aluminoxane component and a metallocene component. This catalyst may be further activated with, e.g., alkylaluminum cocatalyst, and contacted, under polymerization conditions, with ethylene and optionally one or more comonomers, to produce ethylene homo- or copolymers with a bimodal molecular weight distribution and improved resin swell properties in a single reactor. These ethylene polymers are particularly suitable for blow molding applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 15 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:319476 USPATFULL

TITLE: Supported dual transition metal catalyst systems INVENTOR(S): Shih, Keng-Yu, Columbia, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20030225225	A1	20031204	
	US 6686306	B2	20040203	
APPLICATION INFO.:	US 2002-120317	A1	20020410	(10)

APPLICATI	ION INFO.:	US 2002-120317	A1 2	20020410
		NUMBER	DATE	2
PRIORITY DOCUMENT	INFORMATION:	US 2001-287602P Utility	200104	130 (60)

APPLICATION

DOCUMENT TYPE: FILE SEGMENT:

LEGAL REPRESENTATIVE: Robert A. Maggio, W. R. Grace & Co.-Conn., Patent Dept., 7500 Grace Drive, Columbia, MD, 21044-4098

NUMBER OF CLAIMS: 81

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Page(s) LINE COUNT: 5200

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A coordination catalyst system comprising at least one metallocene or constrained geometry pre-catalyst transition metal compound, (e.q., rac-ethylene bis(indenyl)zirconium dichloride), at least one non-metallocene, non-constrained geometry, bidentate transition metal compound or tridentate transition metal compound (e.g., tridentate 2,6-diacetylpyridine-bis(2,4,6trimethylanaline)FeCl.sub.2) at least one support-activator (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound (e.g., triisobutyl aluminum), in controlled amounts, and methods for preparing the same. The resulting dual transition metal catalyst system is suitable for addition polymerization of ethylenically and acetylenically unsaturated monomers into polymers; for example, polymers having a broad molecular weight distribution, Mw/Mn, and good polymer morphology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 16 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:289049 USPATFULL

TITLE: Method of making supported transition metal

polymerization catalysts and compositions formed therefrom

INVENTOR(S): Shih, Keng-Yu, Columbia, MD, UNITED STATES

NUMBER KIND DATE US 20030203808 A1 20031030 US 6927261 B2 20050809 US 2002-120291 A1 20020410 (10) PATENT INFORMATION: APPLICATION INFO.:

NUMBER DATE

PRIORITY INFORMATION: US 2001-287607P 20010430 (60) DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Howard J. Troffkin, W. R. Grace & Co.-Conn., Patent

Dept., 7500 Grace Drive, Columbia, MD, 21044-4098 NUMBER OF CLAIMS: 67

NUMBER OF CLEATER 1
EXEMPLARY CLAIM: 1
3570

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to a novel one-step method for forming a supported catalyst complex of high activity by substantially simultaneously contacting a bidentate or tridentate ligand forming compound, a transition metal compound and a Lewis acid support-activator agglomerate. The catalyst can be formed prior to polymerization of

olefins or within the polymerization reaction zone.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 17 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:244794 USPATFULL

TITLE: Metallocene and constrained geometry catalyst systems

employing agglomerated metal oxide/clay

support-activator and method of their preparation

Shih, Keng-Yu, Columbia, MD, UNITED STATES INVENTOR(S):

Denton, Dean Alexander, Baltimore, MD, UNITED STATES Carney, Michael John, Eldersburg, MD, UNITED STATES

NUMBER KIND DATE PATENT INFORMATION: US 20030171207 A1 20030911 US 2003-382742 A1 20030306 (10) APPLICATION INFO.:

RELATED APPLN. INFO .: Continuation of Ser. No. US 1999-432008, filed on 1 Nov

1999, GRANTED, Pat. No. US 6559090 DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Robert A. Maggio, W. R. Grace & Co.-Conn., Patent

Dept., 7500 Grace Drive, Columbia, MD, 21044-4098 NUMBER OF CLAIMS: 70 EXEMPLARY CLAIM:

LINE COUNT: 3286

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to a coordinating catalyst system comprising at least one metallocene or constrained geometry pre-catalyst transition metal compound, (e.g., di-(nbutylcyclopentadienyl) zirconium dichloride), at least one support-activator (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound (e.g., triisobutyl aluminum), in controlled amounts, and methods for preparing the same. The resulting catalyst system exhibits enhanced activity for polymerizing olefins and yields polymer having very good morphology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 18 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:188318 USPATFULL

TITLE: Coordination catalyst systems employing chromium support-agglomerate and method of their preparation

Shih, Keng-Yu, Columbia, MD, UNITED STATES INVENTOR(S): Denton, Dean Alexander, Baltimore, MD, UNITED STATES

Glemza, Rimantas, Baltimore, MD, UNITED STATES

NUMBER KIND DATE US 20030130111 A1 20030710 PATENT INFORMATION: US 6946420 B2 20050920 US 2002-120314 A1 20020410 (10) APPLICATION INFO.:

NUMBER DATE

PRIORITY INFORMATION: US 2001-287600P 20010430 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Howard J. Troffkin, W. R. Grace & Co.-Conn., Patent Dept., 7500 Grace Drive, Columbia, MD, 21044-4098

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 4128 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to a coordinating catalyst system comprising at least one pre-catalyst selected from late transition metal bidentate or tridentate ligand containing compounds, at least one support-agglomerate having chromium immobilized thereto (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound in controlled amounts, and methods for preparing the same. The resulting catalyst system exhibits enhanced activity for

polymerizing olefins and yields polymer products having very good morphology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 19 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:140856 USPATFULL

Coordination catalyst systems employing agglomerated TITLE:

metal oxide/clay support-activator and method of their

preparation INVENTOR(S): Shih, Keng-Yu, Columbia, MD, UNITED STATES

Carney, Michael John, Eldersburg, MD, UNITED STATES Denton, Dean Alexander, Baltimore, MD, UNITED STATES

PATENT ASSIGNEE(S): W. R. Grace & Co.-Conn. (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 20030096698 A1 20030522 US 2002-113761 A1 20020401 (10) APPLICATION INFO.:

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-431771, filed on 1 Nov

1999, GRANTED, Pat. No. US 6399535

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Robert A. Maggio, W. R. Grace & Co.-Conn., Patent Dept., 7500 Grace Drive, Columbia, MD, 21044-4098

NUMBER OF CLAIMS: 64

EXEMPLARY CLAIM: 1 7 Drawing Page(s)

NUMBER OF DRAWINGS:

LINE COUNT: 3718

CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention is directed to a coordinating catalyst system

comprising at least one bidentate or tridentate pre-catalyst transition metal compound, (e.g., 2,6-bis (2,4,6-trimethylarylamino) pyridyl iron dichloride), at least one support-activator (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound (e.g., triisobutyl aluminum), in controlled amounts, and methods for preparing the same. The resulting catalyst system exhibits enhanced activity for polymerizing olefins and yields polymer having

very good morphology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 20 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:127761 USPATFULL TITLE: Silane-grafted materials for solid and foam

applications

INVENTOR(S): Bambara, John D., Osterville, MA, UNITED STATES Kozma, Matthew L., Osterville, MA, UNITED STATES

Hurley, Robert F., Centerville, MA, UNITED STATES PATENT ASSIGNEE(S): Sentinel Products Corp., a New York corporation (U.S.

corporation)

PATENT INFORMATION: US 20030087976 A1 20030508 US 2001-986776 A1 20011109 (9) APPLICATION INFO.: RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-557261, filed on 24 Apr 2000, GRANTED, Pat. No. US 6316512 Continuation of

NUMBER KIND DATE

Ser. No. US 1999-270583, filed on 16 Mar 1999, GRANTED,

Pat. No. US 6103775 Division of Ser. No. US

1996-749740, filed on 15 Nov 1996, GRANTED, Pat. No. US

5883144 Continuation-in-part of Ser. No. US 1994-308801, filed on 19 Sep 1994, ABANDONED

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: CANTOR COLBURN, LLP, 55 GRIFFIN ROAD SOUTH, BLOOMFIELD,

CT, 06002

NUMBER OF CLAIMS: 20

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s) LINE COUNT: 2448

CAS INDEXING IS AVAILABLE FOR THIS PATENT. New cross-linked polymeric foam compositions, and methods for making the

same, are provided. The new compositions utilize novel cross-linked polyolefin copolymers and show improvements in strength, toughness, flexibility, heat resistance and heat-sealing temperature ranges as compared to conventional low density polyethylene compositions. The new compositions also show processing improvements over linear low density polyethylene. The novel polyolefins, which are essentially linear, comprise ethylene polymerized with at least one

alpha-unsaturated C3 to C20 olefinic comonomer, and optionally at least one C3 to C20 polyene, and exhibit, in an uncross-linked sense, a resin density in the range of about 0.86 g/cm.sup.3 to about 0.96 g/cm.sup.3, a melt index in the range of about 0.5 dg/min to about 100 dg/min, a molecular weight distribution in the range of from about 1.5 to about 3.5, and a composition distribution breadth index greater than about 45 percent. The polyolefins are silane-grafted to enhance the physical properties and processability of the resins. Slow silane-grafted materials exhibit enhanced physical and processing properties.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 110 21-48 ibib abs

L10 ANSWER 21 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2003:123309 USPATFULL

TITLE: Metallocene and constrained geometry catalyst systems

employing agglomerated metal oxide/clav

support-activator and method of their preparation INVENTOR(S):

Shih, Keng-Yu, Columbia, MD, United States

Denton, Dean Alexander, Baltimore, MD, United States Carney, Michael John, Eldersburg, MD, United States

PATENT ASSIGNEE(S):

W. R. Grace & Co.-Conn., Columbia, MD, United States

(U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6559090	B1	20030506	
APPLICATION INFO.:	US 1999-432008		19991101	(9)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	GRANTED			
PRIMARY EXAMINER:	Bell, Mark L.			
ASSISTANT EXAMINER:	Pasterczyk, J.			
LEGAL REPRESENTATIVE:	Maggio, R. A.			
NUMBER OF CLAIMS:	75			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	0 Drawing Figure	s); 0	Drawing Pa	ige(s)
LINE COUNT:	3235			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a coordinating catalyst system comprising at least one metallocene or constrained geometry pre-catalyst transition metal compound, (e.g., di-(nbutylcyclopentadienyl)zirconium dichloride), at least one support-activator (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound (e.g., triisobutyl aluminum), in controlled amounts, and methods for preparing the same. The resulting catalyst system exhibits enhanced activity for polymerizing olefins and yields polymer having very good morphology. The support-activator is a layered material having a negative charge on its interlaminar surfaces and is sufficiently Lewis acidic to activate the transition metal compound for olefin polymerization.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 22 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2002:239125 USPATFULL

TITLE: Polymerization catalyst system comprising heterocyclic fused cyclopentadienide ligands

Fisher, Richard Allen, Malvern, PA, United States INVENTOR(S):

Temme, Rolf Bodo, Dormagen, GERMANY, FEDERAL REPUBLIC

PATENT ASSIGNEE(S):

Exxon Mobil Chemical Patents Inc., Houston, TX, United States (U.S. corporation)

NUMBER KIND DATE PATENT INFORMATION: US 6451938 B1 20020917 US 1997-999214 19971229 19971229 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-806181, filed

on 25 Feb 1997, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED PRIMARY EXAMINER: Wu, David W. ASSISTANT EXAMINER: Rabago, R.

LEGAL REPRESENTATIVE: Runyan, Jr., Charles E.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM:

AB

NUMBER OF DRAWINGS: 0 Drawing Figure(s): 0 Drawing Page(s)

LINE COUNT: 1370

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to a polymerization catalyst system comprising a catalytic complex formed by activating a transition metal compound which comprises a metal selected from group 3 through 10 of the periodic table, preferably from group 4, 5, or 6 of the periodic table, and a group 13, 15, or 16 heterocyclic fused cyclopentadienide ligand. In one embodiment the inventive transition metal compound is represented by the [L].sub.mM[A].sub.n(S).sub.o wherein M is a transition metal selected from groups 3 through 10 of the periodic table, and at least one of L is group 13, 15, or 16 heterocyclic fused cyclopentadienide ligand. Also disclosed is a polymerization process utilizing the catalyst systems of the invention. Ethylene polymerizations or copolymerizations with dimethyl (n5-pentamethylcyclopentadienyl) (1azaindenyl) zirconium and bis(5-methyl-cyclopenta[b]thiophene) zirconium dichloride, activated by tris(pentafluorophenyl) boron and methylalumoxane, respectively, are illustrated.

L10 ANSWER 23 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2002:129906 USPATFULL

TITLE: Coordination catalyst systems employing agglomerated metal oxide/clay support-activator and method of their

preparation

INVENTOR(S): Shih, Keng-Yu, Columbia, MD, United States

Carney, Michael John, Eldersburg, MD, United States

Denton, Dean Alexander, Baltimore, MD, United States
PATENT ASSIGNEE(S): W. R. Grace & Co.-Conn., Columbia, MD, United States

(U.S. corporation)

LEGAL REPRESENTATIVE: Maggio, Robert A.
NUMBER OF CLAIMS: 64
EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 13 Drawing Figure(s); 7 Drawing Page(s)

LINE COUNT: 3412

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

As inharms a warmage for final transfer of the present invention is directed to a coordinating catalyst system comprising at least one bidentate or tridentate ligand containing pre-catalyst transition metal compound, (e.g., 2,6-bis (2,4,6-trimethylarylamino)pyridyl iron dichloride), at least one support-activator (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound (e.g., triisobutyl aluminum), in controlled amounts, and methods for preparing the same. The resulting catalyst system exhibits enhanced activity for polymerizing olefins and yields polymer having very good morphology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 24 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2001:202691 USPATFULL

TITLE: Silane-grafted materials for solid and foam

applications

INVENTOR(S): Bambara, John D., Osterville, MA, United States Kozma, Matthew L., Osterville, MA, United States

Hurley, Robert F., Centerville, MA, United States
PATENT ASSIGNEE(S): Sentinel Products Corp., Hyannis, MA, United States

(U.S. corporation)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Truong, Duc

LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: 35

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)

LINE COUNT: 2427

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

New cross-linked polymeric foam compositions, and methods for making the same, are provided. The new compositions utilize novel cross-linked polyolefin copolymers and show improvements in strength, toughness, flexibility, heat resistance and heat-sealing temperature ranges as compared to conventional low density polyethylene compositions. The new compositions also show processing improvements over linear low density polyethylene. The novel polyolefins, which are essentially linear, comprise ethylene polymerized with at least one alpha-unsaturated C3 to C20 olefinic comonomer, and optionally at least one C3 to C20 polyene, and exhibit, in an uncross-linked sense, a resin density in the range of about 0.86 g/cm.sup.3 to about 0.96 g/cm.sup.3, a melt index in the range of about 0.5 dg/min to about 100 dg/min, a molecular weight distribution in the range of from about 1.5 to about 3.5, and a composition distribution breadth index greater than about 45 percent. The polyolefins are silane-grafted to enhance the physical properties and processability of the resins. Slow silane-grafted materials exhibit enhanced physical and processing properties.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 25 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2001:148056 USPATFULL

TITLE: Method of catalyst transitions in olefin polymerizations

INVENTOR(S): Almquist, Vidar, Porsgrunn, Norway

Aastad, Tone, Stathelle, Norway

Melaaen, Ingrid Sorum, Skjelsvik, Norway Hokkanen, Harri, Helsinki, Finland

Kallio, Kalle, Gammelby, Finland PATENT ASSIGNEE(S): Borealis A/S, Lyngby, Denmark (non-U.S. corporation)

NUMBER KIND DATE PATENT INFORMATION: US 6284849 B1 20010904 WO 9732905 19970912 APPLICATION INFO.: US 1999-142402 19990111 (9) WO 1997-NO65 19970305

> 19990111 PCT 371 date 19990111 PCT 102(e) date

NUMBER DATE PRIORITY INFORMATION: NO 1996-898 19960305

PRIORITY INFORMATION Utility
DOCUMENT TYPE: Utility
GRANTED FILE SEGMENT: GRANIED
PRIMARY EXAMINER: Wu, David W.
ASSISTANT EXAMINER: Harlan, R.

LEGAL REPRESENTATIVE: Scully, Scott, Murphy & Presser

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 594

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A method for transitioning between two different catalysts in olefin

polymerizations, a first catalyst and a second catalyst, comprising the steps of: discontinuing the feed of the first catalyst into the polymerization reactor, and introducing the second catalyst into the reactor, wherein the transition is performed between a chromium-based catalyst and a metallocene catalyst.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 26 OF 48 USPATFULL on STN

ACCESSION NUMBER: 2000:105958 USPATFULL

TITLE: Silane-grafted materials for solid and foam

applications INVENTOR(S):

Bambara, John D., Osterville, MA, United States Kozma, Matthew L., Osterville, MA, United States

Hurley, Robert F., Centerville, MA, United States PATENT ASSIGNEE(S): Sentinel Products Corp., Hyannis, MA, United States

(U.S. corporation)

NUMBER KIND DATE -----

PATENT INFORMATION: US 6103775 20000815 US 1999-270583 19990316 (9) APPLICATION INFO.:

RELATED APPLN. INFO.: Division of Ser. No. US 1996-749740, filed on 15 Nov 1996, now patented, Pat. No. US 5883144 which is a

continuation-in-part of Ser. No. US 1994-308801, filed

on 19 Sep 1994, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted Truong, Duc PRIMARY EXAMINER:

LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: 34 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)

LINE COUNT: 2441

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

New cross-linked polymeric foam compositions, and methods for making the same, are provided. The new compositions utilize novel cross-linked polyolefin copolymers and show improvements in strength, toughness, flexibility, heat resistance and heat-sealing temperature ranges as compared to conventional low density polyethylene compositions. The new compositions also show processing improvements over linear low density polyethylene. The novel polyolefins, which are essentially linear, comprise ethylene polymerized with at least one alpha-unsaturated C3 to C20 olefinic comonomer, and optionally at least one C3 to C20 polyene, and exhibit, in an uncross-linked sense, a resin density in the range of about 0.86 g/cm.sup.3 to about 0.96 g/cm.sup.3, a melt index in the range of about 0.5 dg/min to about 100 dg/min, a molecular weight distribution in the range of from about 1.5 to about 3.5, and a composition distribution breadth index greater than about 45 percent. The polyolefins are silane-grafted to enhance the physical properties and processability of the resins. Slow silane-grafted materials exhibit enhanced physical and processing properties.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 27 OF 48 USPATFULL on STN

ACCESSION NUMBER: 1999:163621 USPATFULL

TITLE: Bimetallic catalysts for ethylene polymerization reactions activated with

paraffin-soluble alkylalumoxanes

Kissin, Yury V., East Brunswick, NJ, United States INVENTOR(S): Mink, Robert I., Warren, NJ, United States

Nowlin, Thomas E., West Windsor, NJ, United States

Mobil Oil Corporation, Fairfax, VA, United States (U.S. PATENT ASSIGNEE(S):

corporation)

NUMBER KIND DATE -----US 6001766 US 1997-998146 PATENT INFORMATION: 19991214 APPLICATION INFO.: 19971224 (8)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Bell, Mark L.

ASSISTANT EXAMINER: Pasterczyk, J.

LEGAL REPRESENTATIVE: Cuomo, Lori F., Santini, Dennis P.

NUMBER OF CLAIMS: 15 EXEMPLARY CLAIM: LINE COUNT: 711

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Catalyst compositions for homopolymerization and copolymerization of ethylene which comprise two transition metal compounds, one of them a cyclopentadienyl complex of a transition metal and another a non-metallocene derivative of a transition metal are described. The catalysts are activated by alkylalumoxanes that are soluble in non-aromatic hydrocarbons. Bimetallic catalysts of this invention are suitable for the manufacture of ethylene homopolymers and copolymers with broad bimodal molecular weight distributions. The alkyl alumoxanes have at least one [AR(R)--0--] repeating group in which R is an alkyl group of at least two carbon atoms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 28 OF 48 USPATFULL on STN

ACCESSION NUMBER: 1999:34045 USPATFULL

TITLE: Silane-grafted materials for solid and foam

applications

INVENTOR(S): Bambara, John D., Osterville, MA, United States Kozma, Matthew L., Osterville, MA, United States Hurley, Robert F., Centerville, MA, United States

PATENT ASSIGNEE(S): Sentinel Products Corp., Hyannis, MA, United States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5883144 19990316 APPLICATION INFO:: US 1996-749740 19961115 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-308801, filed

on 19 Sep 1994, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Truong, Duc LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: 47 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s) LINE COUNT: 2553

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

New cross-linked polymeric foam compositions, and methods for making the same, are provided. The new compositions utilize novel cross-linked polyolefin copolymers and show improvements in strength, toughness,

flexibility, heat resistance and heat-sealing temperature ranges as compared to conventional low density polyethylene compositions. The new compositions also show processing improvements over linear low density polyethylene. The novel polyolefins, which are essentially linear, comprise ethylene polymerized with at least one alpha-unsaturated C3 to C20 olefinic comonomer, and optionally at least one C3 to C20 polyene, and exhibit, in an uncross-linked sense, a resin density in the range of about 0.86 g/cm.sup.3 to about 0.96 g/cm.sup.3, a melt index in the range of about 0.5 dg/min to about 100 dg/min, a molecular weight distribution in the range of from about 1.5 to about 3.5, and a composition distribution breadth index greater than about 45 percent. The polyolefins are silane-grafted to enhance the physical properties and processability of the resins. Slow silane-grafted materials exhibit enhanced physical and processing properties.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 29 OF 48 USPATFULL on STN

ACCESSION NUMBER: 1998:119094 USPATFULL

TITLE: Catalyst compositions and process for preparing

polvolefins

INVENTOR(S): McNally, John Paul, Berkshire, United Kingdom

PATENT ASSIGNEE(S): BP Chemicals Limited, United Kingdom (non-U.S.

corporation) NUMBER KIND DATE PATENT INFORMATION: -----US 5814574 US 1996-689191 19980929

APPLICATION INFO.: 19960805 (8) RELATED APPLN. INFO.: Continuation of Ser. No. 179933, filed on 11 Jan

1994, now abandoned

NUMBER DATE _____ PRIORITY INFORMATION: GB 9300934 19930119 DOCUMENT TYPE: Utility FILE SEGMENT: Granted

FILE SEGMENT: Granted
PRIMARY EXAMINER: Beck, Shrive
ASSISTANT EXAMINER: Meeks, Timothy

LEGAL REPRESENTATIVE: Brooks Haidt Haffner & Delahunty

NUMBER OF CLAIMS: 15 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 716

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A catalyst composition comprising at least one metallocene complex of general formula I or II ##STR1## wherein R is a univalent of divalent 1-20c hydrocarbyl, or a 1-20c hydrocarbyl containing substituent oxygen, silicon, phosphorus, nitrogen of sulphur atoms with the proviso that at least one R group contains a lewis base functionality and when there are two or more R groups present they may be the same or different, and when R is divalent it is directly attached to M and replaces a Y ligand, and wherein M is a Group IVA metal,

Y is a univalent anionic ligand

X is an organic group containing a cyclopentadienyl nucleus and for formula I

n is an integer of 1 to 10

x is either 1 or 2, and for formula II,

n, m and 1 are integers or 0 such that $n + m + 1 \ge 1$, p = 0 - 2, and

z is a c.sub.1 to c.sub.4 alkylene radical or a dialkyl germanium or silicon or an alkyl phosphine or amine radical or bis-dialkylsilyl or bis-dialkylgermanyl containing hydrocarbyl groups having 1 to 4 carbon atoms bridging the cyclopentadienyl nuclei.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 30 OF 48 USPATFULL on STN

ACCESSION NUMBER: 1998:69124 USPATFULL

TITLE: Catalyst compositions and process for preparing

polyolefins
INVENTOR(S): McNally, John Paul, Berkshire, United Kingdom

PATENT ASSIGNEE(S): BP Chemicals Limited, United Kingdom (non-U.S.

corporation)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-467726, filed on 6 Jun 1995, now abandoned which is a division of Ser. No. US

1995, now abandoned which is a division of Ser. N 1994-179933, filed on 11 Jan 1994, now abandoned

NUMBER DATE

PRIORITY INFORMATION: GB 1993-934 19930119

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Nagumo, Mark

LEGAL REPRESENTATIVE: Brooks Haidt Haffner & Delahunty

NUMBER OF CLAIMS: 6 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 684

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Catalyst compositions comprising metallocene complexes having Lewis base functionality may be used for the preparation of polyolefins. Preferred complexes are zirconium complexes in which the Lewis base functionality is provided by ether or thiosether groups.

The catalyst compositions may be supported on inorganic supports or on supports having polymerisation activity eg Ziegler catalysts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 31 OF 48 USPATFULL on STN

ACCESSION NUMBER: 97:24971 USPATFULL

TITLE: Catalyst for bimodal molecular weight distribution

ethylene polymers and copolymers

INVENTOR(S): Mink, Robert I., Warren, NJ, United States

Nowlin, Thomas E., West Windsor, NJ, United States Schregenberger, Sandra D., Neshanic, NJ, United States Shirodkar, Pradeep P., Somerset, NJ, United States

Tsien, Grace O., Colonia, NJ, United States

PATENT ASSIGNEE(S): Mobil Oil Corporation, Fairfax, VA, United States (U.S.

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

44

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s) LINE COUNT: 1374

corporation)

NUMBER KIND DATE PATENT INFORMATION: US 5614456 19970325 US 1994-333684 19941103 (8) APPLICATION INFO.: RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-151664, filed on 15 Nov 1993, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Pal, Asok LEGAL REPRESENTATIVE: Schneller, M. V., Keen, M. D. NUMBER OF CLAIMS: 16 EXEMPLARY CLAIM: NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s) LINE COUNT: 692 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The interaction of silica, previously calcined at 600° C., with dibutylmagnesium (DBM), 1-butanol and titanium tetrachloride and a solution of methylalumoxane (MAO) and (BuCp).sub.2 ZrCl.sub.2 provides a catalyst that, in the absence of a trialkylaluminum (AlR.sub.3) cocatalyst, produces polyethylene with a bimodal MWD. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L10 ANSWER 32 OF 48 USPATFULL on STN ACCESSION NUMBER: 97:12407 USPATFULL TITLE: Process and a catalyst for preventing reactor fouling Nowlin, Thomas E., West Windsor, NJ, United States INVENTOR(S): Lo, Frederick Y., Edison, NJ, United States Shinomoto, Ronald S., Norristown, PA, United States Shirodkar, Pradeep P., Somerset, NJ, United States Mobil Oil Corporation, Fairfax, VA, United States (U.S. PATENT ASSIGNEE(S): corporation) NUMBER KIND DATE PATENT INFORMATION: US 5602067 19970211 US 1994-333685 19941103 (8) APPLICATION INFO.: RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-229516, filed on 19 Apr 1994, now patented, Pat. No. US 5473028 which is a division of Ser. No. US 1992-997421, filed on 28 Dec 1992, now patented, Pat. No. US 5332706 DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Caldarola, Glenn A. ASSISTANT EXAMINER: Wood, Elizabeth D. LEGAL REPRESENTATIVE: Schneller, Marina V.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A support containing methylalumoxane and derivatives thereof is described which is formed by an incipient impregnation technique. The most preferred support is silica. Incipient impregnation in accordance with the invention provides a supported alumoxane, nethylalumoxane, which substantially eliminates the problem of fluidized bed reactor fouling when methylalumoxane is introduced into the reactor during its operation. In accordance with the invention, the process comprises

providing methylalumoxane activated metallocene compound in particulate form as catalysts in fluidized bed gas phase operation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 33 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2007:198275 USPAT2

TITLE: Polvethylene resins INVENTOR(S): Barry, David Bruce, Melbourne, AUSTRALIA

Diamond, Gary M., San Jose, CA, UNITED STATES Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES

Wang, Chunming, Acton, MA, UNITED STATES

KIND DATE NUMBER

PATENT INFORMATION: US 20080039606 A9 20080214 US 2007-711076 A1 20070224

APPLICATION INFO.: (11)RELATED APPLN. INFO.:

Division of Ser. No. US 2004-475601, filed on 12 May 2004, GRANTED, Pat. No. US 7199195 A 371 of

International Ser. No. WO 2002-US10326, filed on 4 Apr

2002

NUMBER DATE

PRIORITY INFORMATION: US 2001-289173P 20010507 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: EXXONMOBIL CHEMICAL COMPANY, 5200 BAYWAY DRIVE, P.O. BOX 2149, BAYTOWN, TX, 77522-2149, US

NUMBER OF CLAIMS: 38

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 1345

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention provides ethylene/ α -olefin copolymers exhibiting improved environmental stress cracking resistance properties, and methods for the production of the copolymers in a single reactor by means of a bimetallic catalyst including a Ziegler component and a

metallocene component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 34 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2005:325065 USPAT2

TITLE: Processes for transitioning between metallocene

and Ziegler-Natta polymerization catalysts INVENTOR(S):

Agapiou, Agapios Kyriacos, Humble, TX, UNITED STATES Hagerty, Robert Olds, La Porte, TX, UNITED STATES Hussein, F. David, Cross Lanes, WV, UNITED STATES

Muhle, Michael Elroy, Kingwood, TX, UNITED STATES Pannell, Richard B., Kingwood, TX, UNITED STATES Russell, Kathryn Ann, Seabrook, TX, UNITED STATES Santana, Robert Lynn, Baytown, TX, UNITED STATES

Zhang, X. Simon, London, UNITED KINGDOM

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6995217 B2 20060207 APPLICATION INFO.: US 2005-191585 B2 20050728 (11)

RELATED APPLN. INFO.: Division of Ser. No. US 2003-715813, filed on 18 Nov 2003, Pat. No. US 6949612

NUMBER DATE

-----PRIORITY INFORMATION: US 2002-437697P 20021231 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Teskin, Fred

LEGAL REPRESENTATIVE: Faulkner, Kevin M. NUMBER OF CLAIMS: 6

EXEMPLARY CLAIM: 1 897 TIME COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes for transitioning among polymerization catalyst systems, preferably catalyst systems that are incompatible with each other. In particular, the processes relate to transitioning from olefin

polymerizations utilizing metallocene catalyst systems to olefin polymerizations utilizing traditional Ziegler-Natta catalyst systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 35 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2005:306628 USPAT2

TITLE: Bimetallic catalyst for producing polyethylene resins

with bimodal molecular weight distribution, its

preparation and use

Mink, Robert Ivan, Tarrytown, NY, UNITED STATES INVENTOR(S): Nowlin, Thomas Edward, West Windsor, NJ, UNITED STATES

Shirodkar, Pradeep P., Kingwood, TX, UNITED STATES Diamond, Gary M., San Jose, CA, UNITED STATES Barry, David Bruce, Melbourne, AUSTRALIA

Wang, Chunming, Tewksbury, MA, UNITED STATES Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE US 7129302 B2 20061031 US 2005-180455 20050713 (11) PATENT INFORMATION: APPLICATION INFO.:

RELATED APPLN. INFO.: Division of Ser. No. US 2003-433228, filed on 29 May 2003, Pat. No. US 6964937

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED Lu, Caixia
LEGAL REPRESENTATIVE: Faulkner, Kevin M., Arechederra, Leandro

NUMBER OF CLAIMS: 26 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 2127

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Bimetallic catalyst for producing polyethylene resins with a bimodal molecular weight distribution, its preparation and use. The catalyst is obtainable by a process which includes contacting a support material with an organomagnesium component and carbonyl-containing component. The support material so treated is contacted with a non-metallocene transition metal component to obtain a catalyst intermediate, the latter being contacted with an aluminoxane component and a metallocene component. This catalyst may be further activated with, e.g., alkylaluminum cocatalyst, and contacted, under polymerization conditions, with ethylene and optionally one or more comonomers, to produce ethylene homo- or copolymers with a bimodal molecular weight distribution and improved resin swell properties in a single reactor. These ethylene polymers are particularly suitable for blow molding applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 36 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2005:281744 USPAT2

TITLE: Olefin polymerisation process

INVENTOR(S): Jacobsen, Grant Berent, Bouc Bel Air, FRANCE Kimberley, Brian Stephen, Bouche du Rhone, FRANCE

Mastroianni, Sergio, Martigues, FRANCE
PATENT ASSIGNEE(S): Ineos Europe Limited, Hampshire, UNITED KINGDOM

(non-U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: EP 2002-358020 20020829

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Rabago, Roberto

LEGAL REPRESENTATIVE: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

NUMBER OF CLAIMS: 12 EXEMPLARY CLAIM: 1 LINE COUNT: 556

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A process for the homopolymerisation of ethylene or the copolymerisation of ethylene and (a-olefins in a polymerisation reactor, said process carried out in the presence of a catalyst system comprising (a) a polymerisation catalyst and (b) an ionic activator is characterised in that an organometallic compound of a Group IIIB metal having at least one unit of formula: M.cedilla.0.cedilla.R or M.cedilla.0.cedilla.M where M is the Group IIIB metal and R is a hydrocarbyl group is added to the reactor. Preferred organometallic compounds include aluminoxanes and the process results in improved poison scavenging as well as advantages in activity profiles, catalyst activity and product characteristics. The process is particularly suitable for use with supported metallocene catalyst systems in the slurry or gas phase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 37 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2005:190265 USPAT2

TITLE: Methods of forming a supported activated catalyst

composition

McCullough, Laughlin G., 114 Crystal Reef Dr., League INVENTOR(S):

City, TX, UNITED STATES 77573

Holtcamp, Matthew W., 26935 Carol Dr., Huffman, TX,

UNITED STATES 77336

NUMBER KIND DATE -----US 7060766 B2 20060613 PATENT INFORMATION:

APPLICATION INFO.:

US 2005-39533 20050120 (11)

RELATED APPLN. INFO.:

Division of Ser. No. US 2003-645817, filed on 21 Aug 2003, Pat. No. US 6900154

NUMBER DATE PRIORITY INFORMATION: US 2002-429114P 20021126 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED PRIMARY EXAMINER: Lu, Caixia

LEGAL REPRESENTATIVE: Faulknen, Kevin M, Arecheterra, Leandro

NUMBER OF CLAIMS:

29 EXEMPLARY CLAIM:

LINE COUNT: 1156

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes of forming a supported activated catalyst composition and method of polymerization are disclosed, the process of forming the composition including combining a halogenated aromatic aluminum activator compound with a fluorinated support and a catalyst to form a supported activated catalyst composition. Also disclosed is a supported

activated catalyst composition, comprising the reaction product of a fluorinated support, a perfluorophenyl aluminum activator and in one embodiment a metallocene catalyst. In one embodiment, the halogenated aromatic aluminum activator is represented by the formula

R.sub.nAl(ArHal).sub.3-n, wherein ArHal is a halogenated aryl group, R is a monoanionic ligand, and n is 1 or 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 38 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2005:99681 USPAT2

TITLE: Polymerization process and control of polymer

composition properties

INVENTOR(S): Ehrman, Fred D., Houston, TX, UNITED STATES Shirodkar, Pradeep P., Kingwood, TX, UNITED STATES Davis, Mark Bradley, Hurricane, TX, UNITED STATES Zilker, Jr., Daniel P., South Charleston, WV, UNITED

Shannon, Porter C., Seabrook, TX, UNITED STATES

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE -----PATENT INFORMATION: APPLICATION INFO.: US 7238756 B2 20070703 US 2003-685607 20031015 20031015 (10) Utility

DOCUMENT TYPE:

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Rabago, Roberto

LEGAL REPRESENTATIVE: Faulkner, Kevin M., Arechederra, III, Leandro

NUMBER OF CLAIMS: 36

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 2 Drawing Page(s)

TIME COUNT: 2406

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods of controlling the flow index and/or molecular weight split of a polymer composition are disclosed. The method of producing a polymer composition in one embodiment comprises incorporating a high molecular weight polymer into a low molecular weight polymer to form the polymer composition in a single polymerization reactor in the presence of polymerizable monomers, a bimetallic catalyst composition and at least one control agent; wherein the control agent is added in an amount sufficient to control the level of incorporation of the high molecular weight polymer, the level of low molecular weight polymer, or both. Examples of control agents include alcohols, ethers, amines and oxygen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 39 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2005:82227 USPAT2

TITLE: Olefin polymerization process using triisobutylaluminum

as a scavenger

INVENTOR(S): Wang, Shaotian, Mason, OH, UNITED STATES

PATENT ASSIGNEE(S): Equistar Chemicals, LP, Houston, TX, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE ______ PATENT INFORMATION: US 6903170 B2 20050607 APPLICATION INFO.: US 2003-673302 20030929 (10)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED PRIMARY EXAMINER: Wu, David W. ASSISTANT EXAMINER: Lee, Rip A.

LEGAL REPRESENTATIVE: Schuchardt, Jonathan L.

NUMBER OF CLAIMS: 10 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 393

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Ethylene and optional comonomers are polymerized using a supported metallocene catalyst, an alumoxane activator, and triisobutylaluminum (TIBAL). A silica support is first pretreated with a silane compound and then with an organoboron compound. The treated silica is then combined with a Group 4 metallocene complex and an alumoxane to generate a supported, activated catalyst. While it was previously thought that the particular support treatment technique used herein provided benefits only for polymerizations catalyzed by non-metallocene single-site complexes, it has now been found that similar benefits can be realized even with conventional

metallocenes if TIBAL is selected as the scavenger.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 40 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2004:268223 USPAT2

TITLE: Supported metallocene catalyst system for

olefin polymerization, method for making and

using the same

Atiqullah, Muhammad, Dhahran, SAUDI ARABIA INVENTOR(S):

Moman, Akhlaq, Riyadh, SAUDI ARABIA

Akhtar, Muhammad Naseem, Dhahran, SAUDI ARABIA Abu-Raqabah, Atieh, Riyadh, SAUDI ARABIA Palackal, Syriac J., Riyadh, SAUDI ARABIA Al-Saleh, Muhammad A., Dhahran, SAUDI ARABIA Rahman, Faizur, Dhahran, SAUDI ARABIA Ibrahim, Muhammad, Riyadh, SAUDI ARABIA Khan, Javaid H., Dhahran, SAUDI ARABIA

PATENT ASSIGNEE(S): Saudi Basic Industries Corporation, SAUDI ARABIA
(non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6908876 B2 20050621
APPLICATION INFO: US 2003-414615 20030416 (10)
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lu, Caixia
LEGAL REPRESENTATIVE: Kramer Levin Naftalis & Frankel LLP
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
UNUMER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 1172

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a supported catalyst system for olefin polymerization which comprises at least one metallocene component and a support of an inorganic oxide of silica, aluminum or a polymer containing hydroxyl groups. The support is modified with an organogermane and/or organotin compound. The inventive catalyst system produces minimal reactor fouling, has excellent productivity and good hydrogen responsiveness. The present invention also relates to a process for preparing the catalyst system and to the slurry/suspension

or gas-phase polymerization of olefins using the catalytic system, optionally with a small amount of aluminoxane cocatalyst.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 41 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2004:240436 USPAT2
TITLE: Polyethylene resins

INVENTOR(S): Barry, David Bruce, Melbourne, AUSTRALIA

Diamond, Gary M., San Jose, CA, UNITED STATES Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES

Wang, Chunming, Acton, MA, UNITED STATES

NUMBER KIND DATE

PATENT ASSIGNEE(S): ExxonMobil Chemical Patents Inc., Houston, TX, UNITED

STATES (U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION: US 2001-289173P 20010507 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED PRIMARY EXAMINER: Rabago, Roberto

NUMBER OF CLAIMS: 26

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention provides ethylene/a-olefin copolymers exhibiting improved environmental stress cracking resistance properties, and methods for the production of the copolymers in a single reactor by means of a bimetallic catalyst including a Ziegler component and a metallocene component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 42 OF 48 USPAT2 on STN

2004:233942 USPAT2 ACCESSION NUMBER:

TITLE: Processes for transitioning between metallocene and Ziegler-Natta polymerization catalysts

INVENTOR(S):

and liegier-hatta polymerization catalysis Agapiou, Myriacos, Humble, TX, UNITED STATES Hagerty, Robert Olds, La Porte, TX, UNITED STATES Hussein, F. David, Cross Lanes, WV, UNITED STATES Muhle, Michael Elroy, Kingwood, TX, UNITED STATES Pannell, Richard B., Kingwood, TX, UNITED STATES Russell, Kathryn Ann, Seabrook, TX, UNITED STATES

Santana, Robert Lynn, Baytown, TX, UNITED STATES Zhang, X. Simon, London, UNITED KINGDOM

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE _______ PATENT INFORMATION: US 6949612 B2 20050927 US 2003-715813 20031118 APPLICATION INFO.: 20031118 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2002-437697P 20021231 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Teskin, Fred

LEGAL REPRESENTATIVE: McKinney, Osborne K., Faulkner, Kevin M.

NUMBER OF CLAIMS: 14 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 931

CAS INDEXING IS AVAILABLE FOR THIS PATENT. AB

Processes for transitioning among polymerization catalyst systems, preferably catalyst systems that are incompatible with each other. In particular, the processes relate to transitioning from olefin polymerizations utilizing metallocene catalyst systems

to olefin polymerizations utilizing traditional Ziegler-Natta catalyst systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 43 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2004:185190 USPAT2

TITLE: Processes for transitioning between chrome-based and mixed polymerization catalysts

INVENTOR(S): Terry, Kersten Anne, Charleston, WV, United States

Goode, Mark Gregory, Hurricane, WV, United States Wente, Daniel E., Houston, TX, United States Chirillo, Jr., John, Friendswood, TX, United States Mawson, Simon, Orlando, FL, United States Cevallos-Candau, Jose Fernando, Charleton, WV, United

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, United States (U.S. corporation)

NUMBER KIND DATE

US 6841630 B2 20050111 US 2003-715651 20031117 PATENT INFORMATION: APPLICATION INFO.: 20031117 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2002-437204P 20021231 (60) DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Teskin, Fred
LEGAL REPRESENTATIVE: Faulkner, Kevin M.
NUMBER OF CLAIMS: 19

NUMBER OF CLAIMS: 1,14 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 1488

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Processes for transitioning among polymerization catalyst

systems, preferably catalyst systems, which are incompatible with each other. Particularly, processes for transitioning among olefin polymerization reactions utilizing silyl-chromate catalyst

systems and metallocene catalyst systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 44 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2004:133775 USPAT2

TITLE: Methods of forming a supported activated catalyst

composition

INVENTOR(S): McCullough, Laughlin G., League City, TX, UNITED STATES Holtcamp, Matthew W., Huffman, TX, UNITED STATES

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE PATENT INFORMATION: US 6900154 B2 20050531 APPLICATION INFO.: US 2003-645817 20030821 20030821 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2002-429114P 20021126 (60) DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lu, Caixia LEGAL REPRESENTATIVE: Faulkner, Kevin M. NUMBER OF CLAIMS: 16

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s) TIME COUNT: 1097

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Processes of forming a supported activated catalyst composition and method of polymerization are disclosed, the process of forming the composition including combining a halogenated aromatic aluminum activator compound with a fluorinated support and a catalyst to form a supported activated catalyst composition. Also disclosed is a supported activated catalyst composition, comprising the reaction product of a fluorinated support, a perfluorophenyl aluminum activator and in one embodiment a metallocene catalyst. In one embodiment, the halogenated aromatic aluminum activator is represented by the formula R.sub.nAl(ArHal).sub.3-n, wherein ArHal is a halogenated aryl group, R is a monoanionic liquand, and n is 1 or 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 45 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2004:64217 USPAT2

TITLE: Bimetallic catalyst for producing polyethylene resins

with bimodal molecular weight distribution, its

preparation and use INVENTOR(S): Mink, Robert Ivan, T

Mink, Robert Ivan, Tarrytown, NY, UNITED STATES Nowlin, Thomas Edward, West Windsor, NJ, UNITED STATES Shirodkar, Pradeep F., Kingwood, TX, UNITED STATES

Diamond, Gary M., San Jose, CA, UNITED STATES Barry, David Bruce, Melbourne, AUSTRALIA Wang, Chunming, Tewksbury, MA, UNITED STATES

Wang, Chunming, Tewksbury, MA, UNITED STATES Fruitwala, Hitesh A., Houston, TX, UNITED STATES Ong, Shih-May Christine, Warren, NJ, UNITED STATES

PATENT ASSIGNEE(S): Univation Technologies, LLC, Houston, TX, UNITED STATES (U.S. corporation)

,....

20030529 PCT 371 date

NUMBER DATE

PRIORITY INFORMATION: US 2000-250317P 20001130 (60)

PRIORIT INFORMATION: US 2000-25031/P 20001130 (
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lu, Caixia
LEGAL REPRESENTATIVE: Faulkner, Kevin M.

NUMBER OF CLAIMS: 25

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 2153

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Bimetallic catalyst for producing polyethylene resins with a bimodal molecular weight distribution, its preparation and use. The catalyst is obtainable by a process which includes contacting a support material with an organomagnesium component and carbonyl-containing component. The support materials os treated is contacted with a non-metallocene transition metal component to obtain a catalyst intermediate, the latter being contacted with an aluminoxane component and a metallocene component. This catalyst may be further activated with, e.g., alkylaluminum cocatalyst, and contacted, under polymerization conditions, with ethylene and optionally one or more

comonomers, to produce ethylene homo- or copolymers with a bimodal molecular weight distribution and improved resin swell properties in a single reactor. These ethylene polymers are particularly suitable for blow molding applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 46 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2003:319476 USPAT2

TITLE: Supported dual transition metal catalyst systems

INVENTOR(S): Shih, Keng-Yu, Columbia, MD, United States MIN (DED

PATENT ASSIGNEE(S): W.R. Grace & Co.- Conn., Columbia, MD, United States

(U.S. corporation)

	NUMBER	KTND	DATE	
PATENT INFORMATION: APPLICATION INFO.:	6686306 2002-120317	B2	20040203 20020410	(10)

NUMBER DATE PRIORITY INFORMATION: US 2001-287602P 20010430 (60) DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED PRIMARY EXAMINER: Lu, Caixia LEGAL REPRESENTATIVE: Maggio, Robert A. NUMBER OF CLAIMS: 81

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT: 4653

CAS INDEXING IS AVAILABLE FOR THIS PATENT. AB

A coordination catalyst system comprising at least one metallocene or constrained geometry pre-catalyst transition metal compound, (e.g., rac-ethylene bis(indenyl)zirconium dichloride), at least one non-metallocene, non-constrained geometry, bidentate transition metal compound or tridentate transition metal compound (e.g., tridentate 2,6-diacetylpyridine-bis(2,4,6trimethylanaline)FeCl.sub.2), at least one support-activator (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound (e.g., triisobutyl aluminum), in controlled amounts, and methods for preparing the same. The resulting dual transition metal catalyst system is suitable for addition polymerization of ethylenically and acetylenically unsaturated monomers into polymers; for example, polymers having a broad molecular

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 47 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2003:289049 USPAT2

TITLE: Method of making supported transition metal

weight distribution, Mw/Mn, and good polymer morphology.

polymerization catalysts and compositions formed therefrom

Shih, Keng-Yu, Columbia, MD, UNITED STATES INVENTOR(S):

PATENT ASSIGNEE(S): W. R. Grace & Co.-Conn., Columbia, MD, UNITED STATES

TETATO DAME

(U.S. corporation) NUMBER

			NOPIDER	KTIAD	DATE
PATENT	INFORMATION:	US	6927261	B2	20050809

APPLICATION INFO.: US 2002-120291 20020410 (10)

NUMBER DATE PRIORITY INFORMATION: US 2001-287607P 20010430 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Harlan, Robert D. LEGAL REPRESENTATIVE: Troffkin, Howard J.

NUMBER OF CLAIMS: 67 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 3580

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to a novel one-step method for forming a supported catalyst complex of high activity by substantially simultaneously contacting a bidentate or tridentate ligand forming compound, a transition metal compound and a Lewis acid support-activator agglomerate. The catalyst can be formed prior to polymerization of olefins or within the polymerization reaction zone.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 48 OF 48 USPAT2 on STN

ACCESSION NUMBER: 2003:188318 USPAT2

TITLE: Coordination catalyst systems employing chromium support-agglomerate and method of their preparation

INVENTOR(S): Shih, Keng-Yu, Columbia, MD, UNITED STATES

Denton, Dean Alexander, Baltimore, MD, UNITED STATES Glemza, Rimantas, Baltimore, MD, UNITED STATES

PATENT ASSIGNEE(S): W. R. Grace & Co.-Conn, Columbia, MD, UNITED STATES

(U.S. corporation)

NUMBER KIND DATE PATENT INFORMATION: US 6946420 B2 20050920 APPLICATION INFO.: US 2002-120314 20020410 20020410 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2001-287600P 20010430 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Choi, Ling-Siu
LEGAL REPRESENTATIVE: Troffkin, Howard

NUMBER OF CLAIMS: 42

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
3986

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to a coordinating catalyst system comprising at least one pre-catalyst selected from late transition metal bidentate or tridentate ligand containing compounds, at least one support-agglomerate having chromium immobilized thereto (e.g., spray dried silica/clay agglomerate), and optionally at least one organometallic compound in controlled amounts, and methods for preparing the same. The resulting catalyst system exhibits enhanced activity for polymerizing olefins and yields polymer products having very good morphology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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FILE 'USPATFULL, USPATOLD, USPAT2, CAPLUS, JAPIO' ENTERED AT 15:41:02 ON 01 OCT 2008

L1 3 SEA ABB=ON PLU=ON (HYDROGEN(8A) DEACTIVAT?)(S)(METALLOCEN? OR TITANOCEN? OR ZIRCONOCEN? OR HAFNOCEN?) D L1 1-3 IBIB ABS D L1 1 IBIB HID

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FILE 'USPATFULL, USPATOLD, USPAT2, CAPLUS, JAPIO' ENTERED AT 15:49:28 ON 01 OCT 2008

.2 215 SEA ABB=ON PLU=ON DEACTIVAT?(8A)(METALLOCEN? OR TITANOCEN? OR ZIRCONOCEN? OR HAFNOCEN?)

L3 25265 SEA ABB=ON PLU=ON POLYMERI?(S) (METALLOCEN? OR TITANOCEN? OR ZIRCONOCEN?) OR HAFNOCEN?)

L4 73867 SEA ABB=ON PLU=ON (ETHYLENE OR ETHENE)(4A) POLYMERI? L5 10069 SEA ABB=ON PLU=ON L3 AND L4

L6 163 SEA ABB=ON PLU=ON L2 AND L5

L7 15252 SEA ABB=ON PLU=ON (SLURRY OR PARTICLE(1A) FORM)(6A) POLYMERI?

L8 83 SEA ABB=ON PLU=ON L6 AND L7
L9 90594 SEA ABB=ON PLU=ON (ETHYLENE OR ETHENE)(S) HYDROGEN
L10 48 SEA ABB=ON PLU=ON L8 AND L9

D L10 1-20 IBIB ABS D L10 21-48 IBIB ABS

FILE HOME

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 30 Sep 2008 (20080930/PD)
FILE LAST UPDATED: 30 Sep 2008 (20080930/ED)
HIGHEST GRANTED PATENT NUMBER: US7430762
HIGHEST GRANTED POUBLICATION NUMBER: US20080235840
CA INDEXING IS CURRENT THROUGH 29 Sep 2008 (20080929/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 30 Sep 2008 (20080930/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2008
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FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 30 Sep 2008 (20080930/PD) FILE LAST UPDATED: 30 Sep 2008 (20080930/ED) HIGHEST GRANTED PATENT NUMBER: US20070164820 HIGHEST APPLICATION PUBLICATION NUMBER: US20080235414 CA INDEXING IS CURRENT THROUGH 30 Sep 2008 (20080930/UPCA) ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 30 Sep 2008 (20080930/PD) REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2008 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2008

USPAT2 now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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FILE LAST UPDATED: 9 SEP 2008 <20080909/UP> MOST RECENT PUBLICATION DATE: 29 MAY 2008 <20080529/PD>

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LAST RELOADED: Sep 26, 2008 (20080926/UP).

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